

ABSTRACT OF THE DISCLOSURE

A DC motor drive circuit includes a switching circuit that drives the coils of a small permanent magnetic DC motor. The drive circuit is preferably implemented in an integrated circuit device, such as a silicon CMOS device. Integrated into the same
5 integrated circuit device is a magnetic sensor arranged to detect the position of the permanent magnet as it passes a defined point, or points, in its revolution, and control circuitry to derive the timing waveforms for driving the coils. The integrated power devices for driving the coils are also arranged to limit the rise and fall times of the applied voltages and currents so as to reduce or eliminate the generation of unwanted RFI.
10 Additional circuitry is also integrated into the same integrated circuit device to derive the necessary power to operate the magnetic sensor, the control circuitry and the switching circuitry from the connections between the switching circuitry and the coils so as to remove the need for a separate power supply connection.

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